ABSTRACT OF THE DISCLOSURE

A data processing system includes a processor that can operate in a plurality of modes and in either a secure domain or a non-secure domain. At least one secure mode is a mode in the secure domain, and at least one non-secure mode is a mode in the non-secure domain. When the processor is executing a program in a secure mode and that program has access to secure data which is not accessible when the processor is operating in a non-secure mode, the processor is responsive to exception conditions for triggering exception processing. Specifically, the processor is responsive to a parameter specifying which of the exceptions should be handled by a secure mode exception handler executing in a secure mode and which should be handled by an exception handler executing in a mode within a current one of the secure domain and the non-secure domain when that exception occurs.